



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,192	05/31/2001	Mark D. Haller	TRW(TE)5734	2280

26294 7590 07/15/2003

TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.
526 SUPERIOR AVENUE, SUITE 1111
CLEVEVLAND, OH 44114

EXAMINER

LE, THANH TAM T

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/871,192

Applicant(s)

HALLER, MARK D.

Examiner

Thanh-Tam T. Le

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-11, 13-18 and 20 rejected under 35 U.S.C. 102(b) as being anticipated by Tsui et al. (IBM Technical Disclosure Bulletin).

Regarding claims 1, 8 and 13, Tsui et al. disclose a double board arrangement comprising:

- a circuit board (1) having a planar first surface (2) and a planar second surface (3) opposite the first surface;
- a first component (8, a card socket) having a first set of connectors (5, short pins). The first set of connectors engaging a corresponding first set of apertures in the first surface of the circuit board; and
- a second component (8, a card socket) having a second set of mechanical one-way connectors (7, short pins). The second set of connectors engaging a corresponding second set of apertures in the second surface of the circuit board. Each of the second set of apertures being separate and apart from each of the first set of apertures. The circuit board having a normal axis perpendicular and passing through both the first and second surfaces.

Regarding claims 2-3, 9-10 and 14-17, the first and second sets of connectors

Art Unit: 2839

are compliant pins.

Regarding claims 4, 11 and 18, the first set of connectors are interposed between the second set of connectors.

Regarding claims 6 and 7, a third component (A, attachment) engaging the first surface and a fourth component (B, attachment) engaging the second surface of the circuit board. The normal axis is not passing through the third and the fourth components.

Regarding claim 20, the features in the method claim are identical to those in the apparatus claims. Therefore, the method for securing electric components of an anti-lock braking system alone is not a patentable feature.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 12 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Tsui et al. in view of Foy et al. (4,916,457).

Tsui et al. disclose the instant claimed invention as described above except for the first set of connectors are solder pins.

Foy et al., figure 4, disclose a solder pin (23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Tsui et al. to have the solder pin as taught by Foy et al. for permanent attach to the circuit board.

Response to Arguments

5. Applicant's arguments filed 4/28/03 have been fully considered but they are not persuasive.

Applicant argues that Tsui et al. (IBM Technical Disclosure Bulletin) do not disclose "each of the second set of apertures being separate and apart from each of the first set of apertures".

The Examiner disagrees.

Tsui et al. (IBM Technical Disclosure Bulletin) disclose each of the second set of apertures (the aperture which the second pin 7 is inserted) being separate and apart from each of the first set of apertures (the aperture which the first pin 5 is inserted). The first and the second apertures in Tsui et al. are not in the same slot. Therefore, Tsui et al. meet the limitations above.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 2839

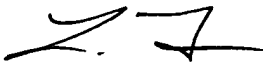
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh-Tam T. Le whose telephone number is (703) 306-5711. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (703) 308-2710. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

TL.
July 11, 2003


LYNN FEILD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800